

## MOS Fied Effect Transistor

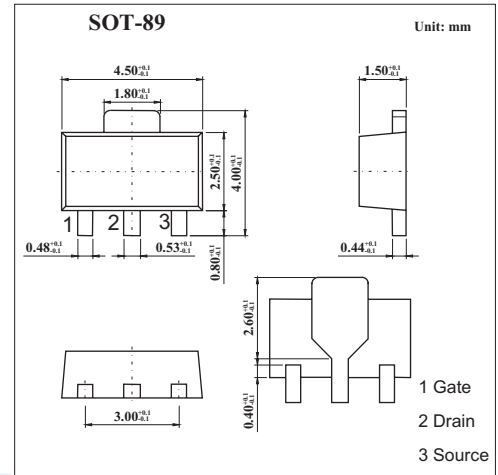
### 2SJ213

#### ■ Features

- Directly driven by Ics having a 5V poer supply.
- Has low on-state resistance

$R_{DS(on)}=5.0\ \Omega\ \text{MAX.}@V_{GS}=-4.0V, I_D=-0.3A$

$R_{DS(on)}=4.2\ \Omega\ \text{MAX.}@V_{GS}=-1.0V, I_D=-0.3A$



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	$V_{DSS}$	-100	V
Gate to source voltage $V_{DS}=0$	$V_{GSS}$	$\pm 20$	V
Drain current (DC)	$I_D$	$\pm 500$	m A
Drain current(pulse) *	$I_D$	$\pm 1.0$	A
Power dissipation	$P_D$	2.0	W
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $PW \leq 10\ \text{ms}; d \geq 50\%$ .

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	$I_{DSS}$	$V_{DS}=-100V, V_{GS}=0$			-10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1\text{mA}$	-1.0	-2.1	-3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-5.0V, I_D=-300\text{mA}$	0.4	0.5		s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4.0V, I_D=-300\text{mA}$		2.5	5.0	$\Omega$
		$V_{GS}=-10V, I_D=-300\text{mA}$		1.8	4.2	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=-10V, V_{GS}=0, f=1\text{MHZ}$		165		pF
Output capacitance	$C_{oss}$		75		pF	
Reverse transfer capacitance	$C_{rss}$		13		pF	
Turn-on delay time	$t_{d(on)}$	$V_{GS(on)}=-4V, R_G=10\ \Omega, V_{DD}=-5V, I_D=-0.3A\ R_L=1.5\ \Omega$		110		ns
Rise time	$t_r$		320		ns	
Turn-off delay time	$t_{d(off)}$		100		ns	
Fall time	$t_f$		130		ns	

#### ■ Marking

Marking	PP
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